

**Rotary actuators for the motorisation of mixing valves**

- Torque 5 Nm / 10 Nm
- Nominal voltage AC 24 V
- Control: 3-point or open-close



Design A



Design B

**Type overview**

Type	Control	Torque (@ nominal voltage)	Power consumption (@ nominal torque) with running time (50 Hz)			
			35 s	70 s	140 s	280 s
NR24-..	3-point	5 Nm	2.0 W	2.0 W	1.0 W	1.5 W
		10 Nm	—	—	1.5 W	1.5 W

Additional combinations on request

**Technical data**

<b>Electrical data</b>	Nominal voltage	AC 24 V, 50/60 Hz
	Nominal voltage range	AC 19,2 ... 28,8 V
	Power consumption	See «Type overview»
	Connection	Cable 1 m, 3 x 0.75 mm <sup>2</sup>
	Parallel operation	No
<b>Functional data</b>	Torque (nominal torque)	See «Type overview»
	Direction of rotation	As an option with terminal blocks
	Position accuracy	±5%
	Angle of rotation	90°↔ electrically limited
	Running time	See «Type overview»
	Sound power level	Max. 35 dB (A)
	Position indication	Reversible display label
	Manual override	Temporary and permanent gear disengagement with rotary knob on the housing
<b>Safety</b>	Protection class	III Extra low voltage
	Degree of protection	IP40
	EMC	CE according to 2004/108/EC
	Mode of operation	Type 1 (EN 60730-1)
	Rated impulse voltage	0.8 kV (EN 60730-1)
	Control pollution degree	3 (EN 60730-1)
	Ambient temperature	0 ... +50 °C (Duty cycle 140/35 s)
	Medium temperature	+5 ... +120 °C (in the mixing valve)
	Non-operating temperature	-30 ... +80 °C
	Ambient humidity	95% r.h., non-condensating (EN 60730-1)
	Maintenance	Maintenance-free
	<b>Dimensions / Weight</b>	Dimensions
Weight		Approx. 400 g / 500 g (without mixing valve)

**Safety notes**



- The actuators have been designed for use in stationary heating, ventilation and air conditioning systems and is not allowed to be used outside the specified field of application, especially in aircraft or in any other airborne means of transport.
- It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during installation.
- The devices do not contain any parts that can be replaced or repaired by the user.
- The devices contain electrical and electronic components and are not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

## Safety notes

*(continued)*

- The installer must check for correct principle of operation after installation.
- To calculate the torque required, the specifications supplied by the mixing valve manufacturer must be observed.
- When determining the flow rate characteristic of controlled devices, the recognised directives must be observed.

## Product features

<b>Applications</b>	The actuators are utilised in conjunction with a corresponding mounting kit as an actuator for the motorisation of the most common mixing valves in HVAC systems
<b>Simple direct mounting</b>	Simple direct mounting with only one screw. The stud bolt included in delivery serves as a universal mounting bracket. The mounting position can be freely selected in steps of $90^\circ$ . Thanks to its small, compact design, the actuators fit in most of the cutouts found in the fitting insulation.
<b>Manual operation</b>	Manual operation possible with lever (temporary gear disengagement by pressing, permanent disengagement using rotary knob on the housing).
<b>Functional safety</b>	The angle of rotation is limited to $90^\circ$ . Once the end stops are reached, the actuators are switched off electrically, thus rendering them deenergised.

## Accessories

	Description
<b>Electrical accessories</b>	Potential-free auxiliary switch with 1-pin change-over switch

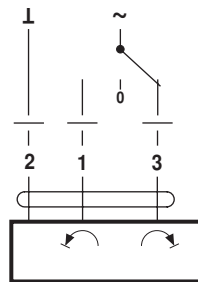
## Electrical installation

## Wiring diagrams

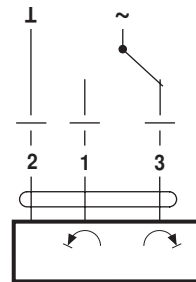
Note  
Connect via safety isolation transformer.



## 3-point control



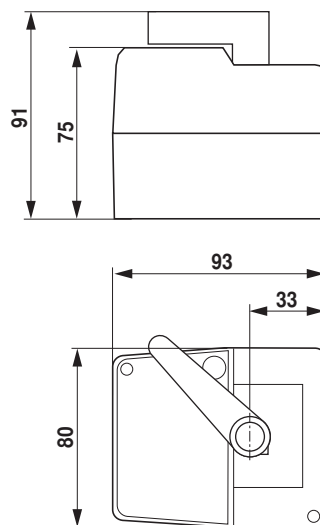
## Open-close control



## Dimensions [mm]

## Dimensional drawings

## Design A



## Design B

